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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,891	02/24/2004	Hirotomi Nemoto	107348-00393	9987

4372 7590 03/08/2007

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EXAMINER	
EPPS, TODD MICHAEL	
ART UNIT	**PAPER NUMBER**
3632	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/784,891	NEMOTO ET AL.	
	Examiner	Art Unit	
	Todd M. Epps	3632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 December 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/15/06-n-12/28/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is the fourth Office Action **final** for serial number 10/784,891, Anti-Vibration Support System For Engine, filed February 24, 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,422,546 B1 to Nemoto et al. (Nemoto) in view of U.S. Patent No. 6,406,010 to Yano et al. (Yano).

Nemoto discloses an elastic member (14), a liquid chamber (24), a movable member (20), an actuator (29), wherein the vibration of the engine is prevented from being transmitted to a vehicle body frame by controlling a supply of electric current (U) to actuator (29); an elastic member (14) is formed from rubber; the movable member (20) is vertically movable and includes a shaft portion extending into an actuator (29); an actuator (29) includes an outer shell defined by an actuator housing (30); a yoke (32) is fixed to a lower portion of an actuator housing (30), and a coil (34); a disk-shaped armature (38) is slidably supported on an inner peripheral surface of an actuator housing (30) and opposite an upper surface of a coil (34); a biasing member (42) is disposed between an armature (38) and a bobbin (33) around which coil (34) is wound

and biases an armature upward; a cylindrical slider (43) is slidably fitted a cylindrical portion of a yoke (32) and includes a boss (44) to which a shaft portion (20a) of a movable member (20); a cylindrical bearing (36) is slidably fitted between a cylindrical portion of a yoke (32) and a cylindrical slider (43); a coiled biasing member (41) is disposed between a cylindrical bearing (36) and a cylindrical slider (43), and a coiled biasing member biases a cylindrical bearing (36) and cylindrical slider (43) in respective opposite directions. However, Nemoto '546 discloses the previous invention failing to specifically teach wherein an active anti-vibration supporting device is prohibited when an abnormality in an operational state of the engine is detected. Nevertheless, Yano '010 discloses wherein the vibration supporting device is prohibited when an abnormality in an operational state of the engine is detected. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the support system of Nemoto '546 with a sensor to detect an abnormality in an operational state of the engine as taught by Yano '010 wherein doing so would provide thereof to shut off the engine and to prevent further damaged to the engine when an abnormality of the engine is detected.

Claims 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,422,546 B1 to Nemoto et al. (Nemoto) in view of U.S. Patent No. 6,406,010 to Yano et al. (Yano).

Nemoto discloses an elastic member (14), a liquid chamber (24), a movable member (20), an actuator (29), wherein the vibration of the engine is prevented from

being transmitted to a vehicle body frame by controlling a supply of electric current (U) to actuator (29); an elastic member (14) is formed from rubber; the movable member (20) is vertically movable and includes a shaft portion extending into an actuator (29); an actuator (29) includes an outer shell defined by an actuator housing (30); a yoke (32) is fixed to a lower portion of an actuator housing (30), and a coil (34); a disk-shaped armature (38) is slidably supported on an inner peripheral surface of an actuator housing (30) and opposite an upper surface of a coil (34); a biasing member (42) is disposed between an armature (38) and a bobbin (33) around which coil (34) is wound and biases an armature upward; a cylindrical slider (43) is slidably fitted a cylindrical portion of a yoke (32) and includes a boss (44) to which a shaft portion (20a) of a movable member (20); a cylindrical bearing (36) is slidably fitted between a cylindrical portion of a yoke (32) and a cylindrical slider (43); a coiled biasing member (41) is disposed between a cylindrical bearing (36) and a cylindrical slider (43), and a coiled biasing member biases a cylindrical bearing (36) and cylindrical slider (43) in respective opposite directions. However, Nemoto '546 discloses the previous invention failing to specifically teach wherein a cylinder suspension of the engine is prohibited when an abnormality in an operational state of an active anti-vibration supporting device is detected. Nevertheless, Yano '010 discloses wherein the vibration supporting device is prohibited when an abnormality in an operational state of the engine is detected. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the support system of Nemoto '546 with a sensor to detect an abnormality in an operational state of the engine as taught by Yano '010

wherein doing so would provide thereof to shut off the engine and to prevent further damaged to the engine when an abnormality of the cylinder suspension of the engine is detected.

Response to Arguments

Applicant's arguments filed December 7, 2006 have been fully considered but they are not persuasive.

In response to applicant's argument that Yano '010 neither discloses nor suggests operation of said active anti-vibration supporting device is prohibited when an abnormality in an operational state of the engine is detected. Nor, Yano neither discloses or suggests the cylinder suspension of the engine is prohibited when an abnormality in an operational state of said active anti-vibration supporting device is detected.

Attention is directed to Yano '010 reference, column 16, lines 7-25, wherein *a control device is employed to control the supply of electric current, so that the electric current has a frequency and an amplitude corresponding to those of vibration to be damped. For example an acceleration sensor is employed to detect directly the vibration of vehicle's body to be damped, and supply an electric signal representing the detected vibration, to the control device; or a signal such as a crank-angle signal or an ignition pulse signal, that relates to the vibration of vehicle's body to be damped is supplied to the control device.* In this case, Yano '010 used the concept of having a sensor used on engine (in any form) to be able to help when an abnormality in an

operational state of the engine is detected. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the support system of Nemoto '546 with a sensor to detect an abnormality in an operational state of the engine as taught by Yano '010 wherein doing so would provide thereof to shut off the engine and to prevent further damaged to the engine when an abnormality of the engine is detected.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Todd M. Epps whose telephone number is 571-272-8282. The examiner can normally be reached on M-F (7:30-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Friedman can be reached on 571-272-6842. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TME

Todd M. Epps
Patent Examiner
Art Unit 3632
March 1, 2007

A. JOSEPH WUJCIAK III
PRIMARY EXAMINER
TECHNOLOGY CENTER